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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/597,654

08/02/2006

Laudermiro Martini Filho

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EXAMINER

BERGIN, JAMES S

ART UNIT

PAPER NUMBER

3641

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/597,654	<b>Applicant(s)</b> MARTINI FILHO, LAUDERMIRO	
	<b>Examiner</b> JAMES S. BERGIN	<b>Art Unit</b> 3641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 August 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/9/2008 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Drawings***

1. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the drawings do not include any reference numerals corresponding to the claimed projectile; no reference numeral for the projectile, the cavity, the for portion, the bottom portion, the slits etc.. The requirement for corrected drawings will not be held in abeyance.

### ***Specification***

2. The disclosure is objected to because of the following informalities: the specification does not include any reference numerals to aid a reader in interpreting the drawings. Appropriate correction is required.

3. The disclosure is objected to because of the following informalities: on page 3, paragraphs [0011] and [0012] are exactly the same which is confusing because the paragraphs describe alternate embodiments of the projectile as illustrated in Figs. 2a and 2b?. Appropriate correction is required.

### ***Claim Objections***

4. Claim 4 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim 4 *cannot depend from any other multiple dependent claim*. See MPEP § 608.01(n). Accordingly, the claim 4 has not been further treated on the merits.

### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In line 15, the limitation, "*said radius r decreases progressively towards the front end where  $d = 0$* " is confusing because in Figs. 1a, and 1b the radius r increases progressively from the inside end of the cavity where  $d = d$  maximum, to a point mid way towards the front end where it defines a maximum radius r, and then the radius r decreases progressively towards the front end where  $d = 0$ . Does the recitation of, "*said radius r*", refer to the maximum value of r or to some other radius? It is noted that "r" shown in Figs. 1a and 1b is not the maximum value of "r".

In line 16, the limitation, "*said radius r decreases progressively towards the bottom of the cavity where  $d = d$  maximum*". Does the recitation of, "*said radius r*", refer to the maximum value of r or to some other radius? It is noted that "r" shown in Figs. 1a and 1b is not the maximum value of "r".

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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8. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stone (US 5,811,723 A). The following rejection is offered in the light of the 112 2<sup>nd</sup> paragraph rejection outlined above.

Regarding claims 1 and 2, Stone discloses the projectile (Fig. 1C; col. 2, lines 1-67) substantially as claimed by the applicant and including a cavity comprising a radius with a maximum value between positions where the value of  $d = 0$  and  $d = d$  maximum as claimed, except for explicitly disclosing the following ranges : **in claim 1**, - *where  $d = 0$  (front end of the projectile) said radius  $r$  ranges from 10% to 40% of the caliber of said projectile; - the maximum value of said radius  $r$  of said internal cavity ranges from 10% to 40% of the caliber of the projectile; - where  $d = d$  maximum (bottom of the cavity) said radius  $r$  ranges from 0 (flat surface) to 35% of the caliber of said projectile (rounded bottom); -  $d$  maximum ranges from 0.50 to 2.5 times the caliber of said projectile; **in claim 2**, ..."*said projectile characterized by the fact that the total cross sectional area of said grooves or slits ranges between 0.2 and 5% of the total cross sectional area of the projectile; said grooves or slits preferably featuring an essentially triangular cross-sectional shape; and being the length of the said grooves preferably more than 5% of the length of the internal cavity of said projectile";

Stone discloses in col. 4, lines 24 – 25, - *"The combination of material choice and nose portion geometry provide for excellent expansion characteristics."*

It would have been obvious to one of ordinary skill in the art at the time that the invention was made to experiment with the nose portion geometry of the Stone projectile so as to arrive at a particular desired expansion characteristic for the nose of

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the projectile at impact, such experimentation by one of ordinary skill in the art including trials of nose portion geometry encompassing the claimed ratio's as reproduced above.

As currently drafted, Claim 3 is a product by process claim. Stones projectile is capable of being formed by such a process. The following is offered from the "The Manual of Patent Examining Procedure, section 2113",

**Product-by-Process Claims**

**PRODUCT-BY-PROCESS CLAIMS ARE NOT LIMITED TO THE  
MANIPULATIONS OF THE RECITED STEPS, ONLY THE STRUCTURE  
IMPLIED BY THE STEPS**

"Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966.

***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See the attached PTO FORM 892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES S. BERGIN whose telephone number is (571)272-6872. The examiner can normally be reached on Monday - Wednesday and Friday, 8.30 - 5.30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 571-272-6873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James S. Bergin/  
Primary Examiner, Art Unit 3641